(i) forming a potassium channel having a unit conductance of approximately 80-120 pS and having increased potassium channel current activity above approximately intracellular pH of 7.1, when the monomer is expressed in a *Xenopus* oocyte; and

(ii) encoded by a nucleic acid that selectively hybridizes under highly stringent hybridization conditions to a nucleic acid comprising a nucleotide sequence of SEQ ID NO:2, , SEQ ID NO:17, or SEQ ID NO:19, wherein the hybridization reaction is incubated at 42°C in a solution comprising 50% formamide, 5x SSC, and 1% SDS and washed at 65°C in a solution comprising 0.2x SSC and 0.1% SDS.

REMARKS

Claims 1, 4, 5, 8, 9, 26-27, and 45-47 are pending in the present application. Claim 48 was canceled without prejudice to subsequent revival. Claim 1 was amended. Appendix A provides the version with markings to show changes made to the claims. Appendix B provides the pending claims subject to examination. For convenience, the Examiner's rejections are addressed in the order in which they were presented in the May 7, 2002 Office Action.

Status of the claims

Claim 1 was amended to recite stringent hybridization conditions and to correct a SEQ ID NO. listing error made in the previous amendment. These amendments add no new matter. Support for them can be found, e.g., in the claims as originally filed and in the specification on page 24, lines 8-11.

Rejection under 35 U.S.C. § 101

Pending claims 1, 4, 5, 8, 9, 26-27, and 45-47 remain rejected under 35 U.S.C. § 101 for lacking utility because the claimed invention allegedly lacks a "substantial" or "real world" utility. The Examiner maintains that in light of the specification, Applicants are only speculating that the claimed polypeptides are pH